WILLIAM HENRY WELCH

(REPRODUCED FROM AN ETCHING BY ALFRED HUTTY)

REPORT OF DINNER GIVEN IN HONOR OF DR. WILLIAM H. WELCH AT THE NEW YORK ACADEMY OF MEDICINE ON APRIL 4, 1930

DR. SAMUEL W. LAMBERT (Toastmaster)

Dr. Welch and Fellows of the Academy, it is with great regret that Dr. Hartwell, our President, cannot be here to-night. He is laid up with a slight indisposition and not allowed to go out so it has fallen to me to attempt to take his place. We are here for the purpose of talking to Dr. Welch and having him talk to us.

My first experience with Dr. Welch was back in 1882. At that time the medical schools of this city were sick. They were drying up. The inheritance from French education was being forgotten and neglected. The teaching methods of Germany had not yet been brought here and put into active use. While the schools were giving nothing but a degree and taking from their students income for the professors and others, the true education and true teaching in this city was being done by young graduates of three and five years standing organized in what were known as quizzes. A little group of quiz masters lived in the streets about Gramercy Park and Madison Square—Dennis, Hall, Halsted, Hartley and F. Marcou were young unknown surgeons. McBride and West Roosevelt and Thacher were young medical men and Welch was one of that same group. Alphabetically he may have been the last, but he was far from the least as you know. He had recently been appointed pathologist to the Bellevue school. He was already recognized as a leader and looked upon as a New Yorker with a great future ahead of him and New York in 1884 was shocked to learn that he had accepted a call to Baltimore to become the professor of pathology in the new school being established there. Dr. Welch therefore started as a New Yorker and has been a member of this Academy for many years. He is now one of our honored and Honorary Fellows. From that beginning he has

grown to be a citizen of the world. That he resides in Baltimore is only an incident.

There are many phases of this man whom we are here to welcome and to honor. One of the important ones for which he has been known is that of scientific investigator. There is here a colleague of his, a co-worker in many activities, and I take pleasure in introducing Dr. Theobald Smith who will tell us about Dr. Welch as the scientific investigator.

REMARKS MADE BY DR. THEOBALD SMITH

Mr. Chairman, may I be permitted to read a letter which came to me this morning in the mail from the previous Dean of the Department of Pathology of Magdalene College, Cambridge:

"I think it probable that you will attend the celebration of the eightieth birthday of our very dear friend and colleague, Professor W. H. Welch. I write to ask you as the other honorary member of the Pathological Society of Great Britain and Ireland resident in the United States to represent our Society at Washington and to convey to Welch the best wishes and congratulations of the Society."

Since receiving the invitation to speak this evening, I have been wondering why I was chosen. I knew there were a great many others who were far more fitted to speak on this subject. I was also asked to be informal and reminiscent. But can you do it? It is a subject of the greatest importance to talk about Dr. Welch as a scientific investigator.

Now unfortunately my contacts with Dr. Welch have not been very extensive. I was never a student of his nor a research worker under him, but I did come in contact with him in some very pleasant ways. Early in my career, I used to go from Washington to Baltimore and talk over with Dr. Welch a great many of the personal physical and scientific troubles that bother a beginner in the study of

bacteriology and pathology. I think that was in 1886 and 1887. That was before there were any other workers, when he had the whole world before him and was really in the midst of researches. It was unfortunate that his time was so much taken up by almost everybody else that there was so little time left him for research. I am not familiar with Dr. Welch's work before that period. That work was more or less in experimental pathology dealing with such subjects as thrombosis, edema, etc.

This was the time when the younger men were drawn into that maelstrom of bacteriology which was formed by the significant discoveries of Koch and his school. Many of you bear in mind that the monograph referring to the tubercle bacillus was published in 1884. Then followed the typhoid bacillus, the diphtheria bacillus and cholera and a number of other important discoveries and we were drawn into that current and Dr. Welch was drawn into it also.

I have read every word of what he published during that time and I know of no publications which surpass his, in lucidity of style, accuracy of expression and thoroughness of work and that great judiciousness in which both sides are taken into consideration and the balance drawn.

I also remember Dr. Welch in the early meetings of the Association of American Physicians. He was the one who carried the burden of the discussion. And when the discussion flagged, with some new thought he would come to the rescue and would tell us something new about the paper. If he had any criticisms to make, he did not make them directly, but took the side of the one who read the paper, showed all the good qualities of that paper, and gradually came around to the point he had in mind and of course the reader didn't know he had been opposed or answered, it was done so gently and successfully.

Now it is said of Buddha that after he had learned all that he was to learn he went into retirement and considered whether to give the world his knowledge or keep

it to himself. I know from my own contact with Dr. Welch that he made up his mind to give his wisdom to the world and that anyone who came to see him for advice in regard to the researches which he was conducting got the best that Dr. Welch had to offer at the time. I think that I may say that probably not one fourth of Dr. Welch's real researches have been published. I imagine they were hung up by such things as I have mentioned—by his desire to help everyone that came to him and not only that but his desire to see that the new medicine was going to reach the hearers that should be reached. For if you look over his works, you will see that he has gone to a great effort to write those monographs on the early work of bacteriology. They were models of style and it would be worth your while for you to read them again if you can get the time. The problems are very much the same to-day as they were at that time.

Now I think it would be very nice if we did not consider an occasion like this as in memory of his eightieth birthday because I don't think it very nice to punctuate the years (I have just had my seventieth birthday), but to consider this one of those cyclic explosions of enthusiasm which have been aroused around Dr. Welch ever since the anniversary of his twenty-fifth doctorate. That was rather quiet, but accompanied by a large volume of researches from his pupils and if you look them over to-day you find they are very remarkable researches. To-day they would be put into some current journal, but I doubt whether any one journal could contain the great volume of work. If we consider him a research man, we must look to his pupils for he is giving out all the time. He did work by proxy among hundreds of men and it is the fruit of that work which is of such incalculable value to the century and which has directly forged the new medicine ahead and built it into material structures all over our country.

It is not uncommon for speakers to have a superiority complex in speaking about a younger man than they are. I cannot have that superiority complex to-night because

Dr. Welch is not only eighty years old but a fellow professor in a new department of knowledge. I doubt whether that has ever been reproduced in medical or in other history to-day and it is so fortunate that he should go into research in this new department because it is of the greatest importance that medicine should realize its history. Medicine to-day is very much like the tower of Babel. It is stated in Genesis, "The Lord said, We shall go down and confuse their language so that they shall not understand one another." That is about the condition of medicine to-day. We are all so wrapped up in our technical jargon and cannot understand one another. We are fortunate to have someone who has learned medicine to take up the subject of medical history and push it along as he has the subject of medicine.

In looking over some histories not long ago, I was surprised that not a word was mentioned of disease. You can't find it in any history. You find wars, battles, victories, and things of that sort but when you think of it, disease is the warp woven into the whole life of humanity. When you read a little of Pendennis and think how it darkened the world you can realize what an influence disease must have had on human life. Now it is fortunate that we have Dr. Welch in the Chair of Medical History and we hope that he will keep on with it and in the next five years we will have another eruption at the New York Academy of Medicine and another in ten years perhaps and I trust that we shall all be here to see it.

DR. LAMBERT: It is a rare occasion to catch a man and make him sit still while his friends tell him what they think of him and what they know of him and I take great pleasure in introducing a specialist on this subject, Dr. Camac. who will speak of Dr. Welch as a student.

REMARKS MADE BY DR. C. N. B. CAMAC

Mr. Toastmaster and Fellow Guests: I shall speak of myself as a student, not Dr. Welch.

Were Dr. Welch a British subject I have no doubt that we would be addressing him as *Lord Baltimore.* Titles of this nature being contrary to the customs of America, I address him by that affectionate sobriquet which I have reason to believe he cherishes as highly as his many honorary degrees: *Popsey.*

Oliver Wendell Holmes, at the conclusion of his "Over the Tea Cups," refers to the many intrusions upon his privacy, both directly and through the mail. The world had come to feel that he belonged to them. It is in such a position that Dr. Welch has been for some years and it is rumored that when he wishes to be assured of privacy he resorts to his bath, but that even there messages are shouted to him over the transom.

Dr. Williams has invited me to speak of the student's viewpoint regarding the early years at Hopkins.

The group of students to which I belong, were not graduates of the institution in the academic sense. The Hospital was opened in 1889, and interns were needed. Four years later the Medical School was opened, and Instructors and Demonstrators were required. Graduates of other Schools went to Baltimore to serve in these capacities, till sons and *daughters* should have been produced from the loins of the parent University. Many remained long after this event, but, it is typical of the Hopkins spirit, that we adopted sons, whether we remained or went to other fields, were remembered through the subsequent years, with the same interest, as were those graduates who had measured up to Dr. Welch's searching requirements for admission.

We were fortunate to get in by the side door, for Dr. Welch had stated that, by the main entrance "the requirements for admission were not surpassed in any Medical School in the World." We more than understood Dr. Osler's remark to Dr. Welch "we are lucky to get in as Professors" for, he added "I am sure neither you nor I could get in as students."

Our group came from the States and Canada. Some of

these men were faculty timber from the first. Councilman for example. He seemed to us, to have been dug out of the foundations, for Dr. Welch on his arrival at Baltimore, found Councilman, his tricycle nearby, at work in the pathological building, before the structure was completed.

The other men from the States were Thayer, Finney, Flexner, Abbott, Cushing, Bloodgood, Carter, Livingood, Blumer—I cannot name them all; from Canada there were Lafleur, Barker, McCrae, Futcher, to mention a few only. When some one commented to Dr. Osler upon the efficiency of the men from Canada, he replied: "Oh yes, but the best *remain* in Canada."

We had come from old institutions, which were trammeled with tradition and dead wood and, there was the obsession that the success of a Medical School was to be gauged by *Quantity*. Yearly reports boasted of the size of the classes and institutions vied with each other in efforts to attract students. We had been the victims of this mass education, in which the student saw the teacher from the benches of a crowded amphitheater only, or, in the quiz class, an evidence in itself, of the inadequacy of the system of medical education at that time. The size and number of buildings, were also criteria of success.

In contrast to all this, Dr. Billings, through articles and pamphlets, was advocating radical changes in the construction and administration of hospitals which were to be an integral part of Medical Schools. Dr. Welch, had outlined an ideal Medical School, which seemed Utopian, but which the benefactress of Hopkins, Miss Garrett, fortunately insisted should be adopted without any modification. Dr. Gilman, in his address at the opening of the University, had said, "The glory of the school rests upon the scholars and the teachers brought together and not upon their number, nor upon the buildings constructed for their use."

It was with such men and ideals, that this group of graduate students was called to labor and help build.

Twenty-five years later, Dr. Welch, referring to these be-

ginnings, said: "Our whole method of teaching was to a large extent a reaction, which may have seemed almost too sweeping, against methods previously existing," and then, going on to describe the method and the results, he says, "There is little didactic teaching. The whole atmosphere of the place has been practical teaching, both in laboratories and wards. All this however, relates to organization, and to providing opportunity for study. The real results are not there. They are to be sought in the life of the institution, in the men connected with it, and those who have gone out of it. It is seen also, in the spirit of harmony which prevails, in the concession of the right of each individual to develop, and, in the spirit of research. . . . "

In reminiscent mood, it is such thoughts that come to one who saw some of the workings of this fundamental reconstruction of Medical education in America, and, I believe it to be no exaggeration to say that the future historian will treat this "reaction against methods previously existing" in the same manner as a modern historian has recently treated the reaction of the famous Italian, French and English Scientific Societies of the 17th Century, to the didactic scholasticism of the Universities of the period.

Mr. Toastmaster, I should like to speak of the opportunity we had of seeing demonstrated, by master minds, the many discoveries in bacteriology, serology, hæmatology, etc., with which the end of the 19th Century was so rich. Some of these discoveries were made by our teachers and fellow workers and even by undergraduates. I will refer to that of the undergraduates only. McCallum and Opie, fourth year medical students, demonstrated their biological discovery in the malarial parasite (proteosoma) of the crow's blood, a discovery, the significance of which was immediately appreciated by biologists throughout the world. Here was indeed proof of the soundness of the new system of education. Didactic mass education had nothing to compare to this among its undergraduates. In this new system, the curriculum was so ordered, that the

undergraduate had not only time to think, but it was possible for him to engage in scientific research. Here, too, was a School for more than merely transmitting book learning; men were contributing to knowledge and what was more important, men were being developed. To repeat Dr. Welch's expression, there was "the concession of the right of each individual to develop," to which may be added Dr. Osler's dictum: "you can not get 30 horse power work of a 20 horse power motor, but you can change a 50 horse power man into one of a hundred or more. . . . " It was this latent power, that these masters were arousing to action, and which later they were to send out into American Medicine, with the far-reaching effects known to us all.

I should like to speak in detail of Dr. Welch's course in Pathology, but I will mention only the opportunity this course afforded us, of seeing the man horse power mutation in operation in the person of Dr. Flexner, who conducted many of Dr. Welch's classes. When we saw him purse his mouth and focus his keen eyes upon us, we knew that he was digging down into his resources and increasing his horse power; whatever Dr. Flexner's erga may have been originally, by the end of the course he was hitting on all eight cylinders and taking hills on high-tension. The subsequent history of this particular instance of man building is well known, but it must be remembered that these results were obtained with material which had not been carefully picked, by the Welch entrance requirements.

I leave it to you to estimate the credit due the Master Builders in this instance. Many of those who were graduate products of the Hopkins educational system in its entirety as well as those of the first group, are to be found to-day in the office of President or Professor in a large number of institutions, throughout the country.

In the training at Hopkins there was a something more than a high grade curriculum, and this *something* Dr. Welch has described as "an atmosphere, an environment, and ideals which will always be cherished and will con-

tinue to be an abiding influence." I will add that these were largely the result of that purpose of our teachers to make us discover every resource within us, and to the scrupulous attention, to the giving credit to him who did the work. Though the Hopkins system of education has been reproduced by old and new schools, this man building feature has not received the attention it so eminently deserves.

I should like to speak of the gatherings at the autopsies. Welch and Osler and a large group from the pathological department and the wards, in attendance with Flexner, Blumer or Livingood, performing the post mortem. A thorough necropsy with the taking of bacteriological and histological specimens was a novelty in those days. With the discussions and demonstrations at these gatherings, our education advanced by leagues.

I should like to refer to the Medical Society, over which Dr. Welch presided for many years and at which he always made remarks which sent us next day to the library with suggestions for reading. Quotations from French and especially German authors, were copious at these meeting and we soon learned the importance of a "reading knowledge" of these languages as required by Dr. Welch of the candidates for his ideal school.

I should like to speak of our playtime and relaxation—the luncheons and dinners to celebrities who visited the Hospital—to be invited to these was an event in our lives. Then there was the baseball team in which Harvey Cushing marked my finger for life with a hot liner to shortstop. Our gatherings at Hontzleman's for pretzels and beer after a longish day, and much more noisy parties that brought Dr. Hurd, the Superintendent, in speechless indignation upon us, individually or en masse, and which bowed down the saintly Sister Rachel, the Housekeeper, in sorrow at the way of youth.

Time does not allow of indulging further in these reminiscences, but Mr. Toastmaster, if you will permit me to

take a moment more, to ask Dr. Welch to accept a modest token?

This volume is presented, not because it has intrinsic value, but because it has belonged since 1776 to four generations of North American physicians; graduates of Edinburgh; Glasgow; Harvard; Columbia; and The University of Pennsylvania.

It is the work on Hygiene by Hippocrates, done into English in 1734 by Francis Clifton. It contains "The Life of Hippocrates" by Soranus of Ephesus; the portrait bust by Rubens, and "The Account of the Plague at Athens" by Thucydides.

It is a "Princeps" listed among the Prima in the Bibliotheca Osleriana.

It is presented, as literature, associated with your newer activities, Hygiene and the History of Medicine.

DR. LAMBERT: In New York or in Baltimore, Dr. Welch, the Professor, will always have an abundant influence on the individual student. He began in New York as a personality. The transfer to Maryland has made him a tradition and we rejoice still a living tradition in Baltimore.

Dr. Ewing will tell us of Dr. Welch, the teacher.

REMARKS MADE BY DR. JAMES EWING

Mr. Toastmaster, Dr. Welch and friends, there are many more deserving, but I am sure none more appreciative of the honor of saying a few words about Dr. Welch as a teacher. I believe the place of this occasion is quite appropriate because, as has been said, Dr. Welch in a way is coming back home to celebrate his eightieth birthday. He waited a long while for this occasion and the Academy is to be congratulated at having him here. As each succeeding occasion of this sort becomes more important with

the passage of time, we may claim that this is the most significant of all the anniversaries to which Dr. Welch has loaned himself. New York is appropriate because it was here that he received his first baptism as a doctor of medicine. It was in the old, to some of us almost historical, days of the College of Physicians and Surgeons in 1875. I suppose that he more than anyone else here, perhaps, can remember the great teachers of those days. I knew them only by name—Delafield, Alonzo Clark and Willard Parker, while Welch, Bull and McBurney were mere demonstrators of anatomy. Then there was the old Bellevue and an equally distinguished line of famous men —Austin Flint, who wrote one of the finest text books of medicine in the English language, Loomis and Janeway, the learned diagnostician—all great men and great teachers. They presented reports and papers and perhaps Welch was not a model student himself, but he listened and gathered there some of the sense of responsibility and ambition which has guided him and inspired him ever since. Let us hope so.

Something drove Welch out of New York. Perhaps it was one of those, I just thought of this recently, perhaps it was one of those terrible art exhibitions by New York medical men which are now featured by the Academy. If so, there was one good result. It gave Welch a chance to go abroad on two occasions where he came in contact with the great pathologists of Germany and an important, intimate contact where he acquired methods of thought and work.

On coming back to New York, he established what was probably the first modern laboratory in Bellevue Hospital where he applied assiduously those methods of observation and investigation which has made Germany the leading nation in pathology since. To be Connecticut born, New York bred, and German trained was an irresistible combination and soon made Welch the leading pathologist in America so when the new school opened in Baltimore, it was inevitable that he should be chosen to head

the Chair of Pathology and the whole project. Knowing the many assets which Welch took to Baltimore one feels that no one was more deserving. There probably never was a more broadly trained American physician nor one who had come into more contact with leading scholars of his day. With this fine conception of scholarship, Welch came back to Baltimore and on this firm foundation his own work and brilliancy was established and that is why his characteristics shine like a beacon light over American medicine.

There were other scholars in those days and the stage was set for a great revolution in American education. In Boston, Fitz Minot and many others lent great distinction to the Harvard group. In New York, I know Prudden maintained an almost ideal atmosphere of scientific endeavor. His work was quite sensational and very thrilling. Studies proceeded but were all very restricted. The schools were isolated and not coördinated.

When the new work began to come out of Johns Hopkins, then we all felt a new thrill of pleasure and inspiration. I will never forget my great delight in reading Thayer and Hewetson monograph on malaria and then followed the very elaborate studies of typhoid fever. Halsted's work and a great line of important studies which for their comprehensive scope established a new standard of clinical laboratory work in this country followed and we all felt it.

Dr. Welch's own contributions I am not able to speak of with authority. I believe that only the author himself can fully evaluate the significance of his own studies—studies on edema and bacteriology took high rank, but I was most enthused and had the most pleasure out of reading again and again Dr. Welch's monograph on cancer of the stomach. I believe you acknowledged once, Dr. Welch, that you *worked* on it. For comprehensive treatment, balance and finished diction, it is a model. It should be made compulsory reading for anyone who attempts to write on a comprehensive subject. This kind of painstaking scholarship

characterized all his work and I think we descry in this work the master hand of Welch.

It is a true saying and one worthy of repitition that no great medical project succeeds without the support of personalities. Dr. Welch took to Baltimore that broad, ample, sympathetic personality which flooded itself through all of the departments of the institution, attracted many able young men, inspired them to superlative efforts, influenced other institutions all over the land and made him the greatly beloved Dean of American Medicine.

History abounds in similar situations. I think the lesson not to be forgotten, especially in these modern days when medical problems take on complexity, think it may be well to remember that no system of organization, no plan, no material resources, no good fortune will ever replace the significance of the power of great personalities on which alone ultimate success is most dependent. For the same reasons, I think, and in another aspect, Dr. Welch has been a tower of strength to the university idea in America. When one considers the enormous influence that the universities have exerted on society from the Renaissance to the present time, one must look with alarm at any thought of the cessation of the university. If there are any who fear that in American Universities ambitions may replace ideas or pedagogy may underrate judgment or abandon adequate training, then to those the presence of Dr. Welch, long maintained in a position of power and prominence, must be a most reassuring subject. But perhaps you may say I am off my topic of Dr. Welch as a teacher. Not at all. These activities, phases of work are necessary for the great teacher. No man can teach more than he exemplifies in his own life. He may have book learning, but the real teacher is the real leader. He must live and represent in his own person and living the high ideals and standards which he teaches and that is Welch. I have reviewed the foundation on which his success has been based.

I never had the pleasure of sitting under Dr. Welch as

teacher or pupil. However, I take pleasure in acknowledging that in New York we have felt constantly the power of his influence and have aimed in so far as in us lay to imitate his scholarship. I have not, therefore, the personal reminiscences with which Dr. Camac has been able to entertain you, but I should think that to Dr. Welch himself his most gratifying service must be found in the power, work, and influence of his army of pupils, many of whom have grown old in service and are familiar to fame.

Modern medicine is only about eighty years old. When one considers the enormous changes that have occurred in medicine in the last sixty years, all of which Dr. Welch is familiar with, he must consider the story like a dream the changes have been so revolutionary. But when he considers that he has lived through it all, has witnessed most of it and through his labors and those of his pupils contributed much to it, it must become a reality. It must be a grand thing to stand on the pinnacle of eighty years of life and service, strong, loyal, triumphant and review the course of events and the ever widening current of his influence upon them. Few have been given that privilege, but it is a sound principle of social philosophy that no man lives unto himself alone, so we too share with Dr. Welch the joy of the splendid retrospect which is spread before him on his eightieth birthday. We wish him continued health and power as the years roll on.

DR. LAMBERT: The latest and most far reaching activity of Dr. Welch is the establishing of a Department of the History of Medicine of which he is the Head at the Johns Hopkins School. So Welch will now continue to influence the younger generations of physicians in that neglected subject, the past and foundation of their science. As a student of history and himself a bibliophile, Dr. Cole will present to us this characteristic of our guest.

Remarks Made by Dr. Rufus Cole

When Dr. Williams asked me to speak to-night he said that what would be appropriate was nothing "high brow," only a few personal reminiscences. I thanked him for the implied compliment and accepted, but I realized that he had assigned to me a difficult, even though pleasant, part. Then when a few days ago he wrote me that I should speak about Dr. Welch as a bibliophile my difficulties were doubled. In the first place although my hair is gray and my children are grown, I cannot forget that I sat before Dr. Welch as a student and I am still conscious of the relation of pupil to teacher. To stand here and talk about him, and especially before him, is to feel as does the little girl when she gives the teacher the bouquet of flowers on the last day of school.

That is one of my difficulties, the other is that I have never thought of Dr. Welch as a bibliophile, that is, in the sense in which that word is generally used. He is a friend and lover of books, but I think his affection is more than "skin deep." It is the soul of books not the outward trappings that attracts him. A bibliophile is generally thought to be one who values a book chiefly because of its age, its rarity and the beauty of its binding and typography. I cannot imagine Dr. Welch's eyes sparkling over the possession of a book simply because it is old and has original wrappers and uncut pages, which of course are the desiderata of the true bibliophile. But though in that sense he is not a bibliophile he is one of the best friends of books I know, at least one of the closest companions. He not only communes with them but he "eats them up" and at a rate that is unique. But strangely enough they do not disappear. He can disgorge them on the slightest provocation! I am told that he has read through the Encyclopedia Britannica, not once but several times! And judging from his apparent knowledge of every conceivable subject I can well believe it. Of course as an old pupil I may have slightly exaggerated ideas of his capabilities, but never have I detected in him the least

ignorance on any topic, from baseball statistics to the theory of relativity or the sources of the Pentateuch.

My first contact with Dr. Welch in his rôle of a lover of history and books came in the meetings of the Johns Hopkins Hospital Historical Club. Soon after his arrival in Baltimore, as pathologist to the Johns Hopkins Hospital, he organized the club. This was in 1890, three years before the medical school opened. At the first meeting, there were 30 men present. Dr. Welch was made president, and he then proceeded to exhibit an English translation of the Regimen Sanitatus of the School of Salernum, and to comment upon it.

Later on as student in the medical school I had the great privilege of attending the meetings of the club and receiving a stimulus from them trying to learn something of the works of the masters in past ages. For a considerable number of years I was privileged to attend these meetings, at which Dr. Welch and Dr. Osler not infrequently spoke. If the speaker of the evening did not appear Dr. Welch was usually invited to take his place. He was always ready to speak extemporaneously and we usually felt very happy and fortunate if the scheduled speaker did not appear.

The meetings of the Historical Club exerted a deep and lasting influence on all the students and assistants. They stirred into life a new side of our personalities, the cultivation of which is important, even in those whose chief interest is science. The true scientist requires more than the ability to reason, he needs imagination. As Shelley says —"We want the creative faculty to imagine that which we know, we want the generous impulse to act that which we imagine, we want the poetry of life." There is no better way for the student of medicine to acquire this than by the cultivation of an interest in the origin and development of his own science as shown by the lives and works of its masters. This and much else of the little I know I learned from Dr. Welch. Not in words and precepts, but through the manifestations of his spirit; invisible yet potent.

One of the most remarkable things about Dr. Welch is

his perfect adaptability to all times and places. Like Socrates he is at home everywhere. He is the antithesis of the provincial and chauvanistic. When I lived in Baltimore I felt that he was a Baltimorean. But when I came to New York I found that New York claimed him as well. As president of the Board of Scientific Directors he was the soul of the Rockefeller Institute. Our most distinguished and illustrious members of the medical profession in New York, such as Dr. Delafield, Dr. Janeway, Dr. Prudden and Dr. Jacobi, claimed him as friend and leader, just as did my revered teachers in Baltimore. But not only in the ranks of the medical profession, but also in social life, among business men, wherever I have seen him, in Baltimore, New York, Naples, or London, there he seems to belong. Even as a soldier in the war Dr. Welch seemed not out of place. During the war I went about with him and Dr. Vaughan and Col. Russell visiting the various camps to learn more about the pneumonia prevailing among the soldiers, in the hope that its prevalence might be diminished. I remember our stopping one day at a little station in the South and we all got out to walk up and down the platform. Dr. Welch strode vigorously along, up and down, and of course was the center of interest of all loiterers hanging about the station. Col. Russell and I walking behind him saw two old farmers looking at him with great admiration and interest, and we overheard one of them say to the other. "I'll bet you he's an old war dog." He was an old war dog, but his battle was to save, not destroy.

The most remarkable thing about Dr. Welch, however, is not his adaptability to place, but in time. I think he would have been as much at home among the Greeks in the Golden Age, or the Elizabethans, as he is in the 20th Century. A few years ago I had dinner with Dr. Welch at Dr. Flexner's. When we left he said he was walking down to the University Club and I offered to accompany him. For some time I have been interested in 17th Century medicine in Italy, and I thought that I might venture to speak of this period without displaying too much ignor-

ance. So I ventured to speak of Athenasius Kircher, that remarkable man, Fellow of the Society of Jesus, who like Dr. Welch, was interested in everything, from the theory of infection to flying machines, but who, unlike Dr. Welch, allowed his power of imagination to gain control over his powers of observation. I had no more than mentioned the name but Dr. Welch was off. He told me about his life, his interests, his associates, his times. It was as though we were talking about Dr. Kelly, or Dr. Halsted in Baltimore. And when we reached the Club it seemed that he was only fairly started. It was almost uncanny.

Then two years ago I was with Dr. Welch in England attending the celebration of the Harvey tercentenary. We were together at a luncheon at Cambridge, and after luncheon Dr. Nuttall, formerly of Baltimore, but now a Fellow of Magdalen College, asked Dr. Welch and Professor Sherrington if they would not like to see Pepys Library, of which Dr. Nuttall is now one of the custodians. Dr. Welch kindly asked me to go along. As you may know, this library was bequeathed to Magdalen College with the proviso that it must be kept intact, and that if even one book were lost, the library should go to one of the rival colleges. As you may imagine the library has been kept with scrupulous care, under lock and key, and to visit it is a great privilege. For many years indeed, a committee from another college visited the library each year and carefully counted the books to see that none were missing. It is a perfect 17th Century library kept in an old room, in the original cases, just as Pepys arranged and left it. It is surprising to find that he had arranged his books with meticulous care, but not as Dr. Welch would have done. They are arranged not according to subject but to size! If a book were slightly less tall than its companions, Pepys had a small block made with an artificial binding on the back corresponding to that of the book, and that block was placed under the book to raise it to the desired height. Now as soon as we entered the room Dr. Welch was at home. He took down books from the shelves, talked familiarly about the authors, and of the

interests and activities of the times. He talked like a contemporary of Pepys.

As you all know Dr. Welch is now organizing and developing what is to be the great Welch Library of Medical History. Just as he has conducted all of his great undertakings, he is not doing this in the conventional way. This is not to be a mausoleum in which dead books are deposited, but it is to be a laboratory, a workshop, where history can be studied and historical discoveries made. It is to contain not only books but workers. And already Dr. Welch is attracting to himself some of the most productive and learned men in this field. One may be sure that out of it will come most important contributions. Is it not interesting that in this comparatively young and new country of ours, the history of medicine is to develop into a living thing, a new science, to shed new light on the nature of this world of ours.

Two years ago Dr. Welch was abroad collecting books for this library, not necessarily first editions, though he wants them, too, but books about everything relating to medicine. One day in Paris I went with him to an old shop across the Seine. The proprietor, knowing he was coming, had collected together a great pile of books for him to look over. Among them were many, the relation of which to medicine was at first sight obscure. I remember his handing me an old book on perfumes. Did I think this subject had any relation to medicine? It did not seem very obvious to me, but Dr. Welch soon enlightened me. I found it had many connections. His statements were convincing and the book joined the others to go to Baltimore. After I had left him I remembered a message I wanted to give him and I turned back to join him. I saw him standing all alone before one of the old book stands along the quay on the left bank of the Seine. He was poring over the old books. It was twilight and the setting sun was casting its last rays on the towers of Notre Dame which formed the background. That picture will long

remain in my memory and is the best one I have of Dr. Welch as a bibliophile.

Before Dr. Williams asked me to confine my attention to Dr. Welch as a book lover I had had the temerity to compose a few verses about him. Since this is an informal occasion and since, through this evening's contact with Dr. Welch you have all acquired something of the spirit which makes him, as Dr. Osler said of Oliver Wendell Holmes, "smile at the foibles of others and over their weaknesses drop a tear," I am going to venture to read them to you.

WILLIAM HENRY WELCH

'Tis not in measured rhymes of valorous feat
In tilt or joust, or clash or battle's roar
That future bards will stirring tales repeat
Of this great knight, as of the knights of yore.

Their songs, of great, but peaceful deeds will tell
Of him who sought, the Python's darts to find
By search intent through every part and cell
Of corpses dead; and thus to save mankind.

Of how he led the youths who sought to know
The secret ways of Nature, the myst'ries of Life,
Taught how to fight disease, man's greatest foe,
And as Apollo's son to wage the strife.

But not the sick to heal, or teach to heal,
Was he content. The multitude cry out
"The foe must be forestalled." On this appeal
He organized a host, disease to rout.

Scientist, teacher, leader, sage and friend,
Custodian of knowledge gained throughout the ages
Your noble acts will themes to future poets lend,
Your deeds will shine on histories' glorious pages.

DR. LAMBERT: It has seemed to the Committee who had this dinner in charge appropriate that some tangible means of recognition of our interest should be presented to

Dr. Welch and we have selected two books. We wish to present the first English edition, 1640, of Bacon's Advancement of Learning and to the citizen of the world and the philosopher, De Chambres' little book, The Art to Know Men, first English edition by John Davis in 1676. It will show Dr. Welch how a predecessor of his viewed a similar subject in which he is very active. To the man and Fellow of this Academy, I am pleased to hand Dr. Welch a resolution from his colleagues which has been signed by every person in the room.

Remarks Made by Dr. William H. Welch

Dr. Lambert, Ladies and Gentlemen, Fellow Academicians. I thought when the suggestion was made to me in Baltimore that I should submit to a banquet and I positively declined, that that really was a quietus on that proposition. When I received a telegram from Linsly Williams saying that some of my friends in the New York Academy of Medicine desired to honor me with a banquet I interpreted it as essentially, as has already been expressed, an opportunity to come home to an intimate and almost family gathering. I thought therefore there was no particular opposition between my former and first decision declining an elaborate anniversary banquet and a family dinner at my old home in New York, so without even consulting my calendar and not even noting that I had rather a strenuous day before it, I promptly accepted by telegram to Linsly Williams. I very much appreciate your invitation to come here for this occasion. I have really no words which can express adequately my grateful appreciation. I do regard it, large as the assembly is, as in a measure a family and intimate gathering. I do regard it as a coming home at least to the early scene of my medical education and beginning of my professional life—scenes which I have cherished all these years and which I hold very dear and I cannot begin to tell you how much I appreciate the presence here of so many who were my friends, not a few my pupils, many my colleagues and

associates in their early days, some of them the sons of those who were my colleagues and associates at that time. I can't begin and I should not endeavor to call their names, but I can't help expressing my delight that Dr. Pupin has come here tonight, a dear friend and a cherished associate these many years, a townsman in my native town in Connecticut. I was delighted that Henry Fairfield Osborn, who whispered in my ear that there were reasons why he would have to leave early, should be here and I will explain later why I particularly appreciated his coming.

I have listened to these speeches. I appreciate them immensely. If I accepted at its face value all that has been said, I should hardly be able to stand on my feet and speak at all. I don't think I have any great illusions as to my services to medicine and medical education, so little so that while it is delightful and pleasant to hear these tributes, I am frank to say that I only appropriate a certain fraction to myself. I want to thank Dr. Smith, Dr. Camac, Dr. Cole, and Dr. Ewing who have spoken with great discrimination, for what they have said. I am glad Dr. Ewing mentioned my dear friends and colleagues, whose names should be mentioned, such as Dr. Prudden. Dr. Cole and I have a number of stories to tell on each other in our experiences on the other side.

Just before I came up here, I was sitting in the library at the University Club reading the Life of Mark Twain. I was reading an account of his speech at a dinner on his seventieth birthday. It was rather a small dinner. I jotted down what he wrote and am rather inclined to think I will use it. It is rather delightful. It is probably an appropriate attitude of mind for one who has reached three score and ten. "Three score years and ten. It is the scriptural statute of limitations. After that you owe no active duties; for you the strenuous life is over. You are a time-expired man, to use Kipling's phrase, you have served your term, well or less well, and you are mustered out. You have become an honorary member of the republic, you are emancipated, compulsions are not for you,

nor any bugle-call but lights out. You pay the time-worn duty bills, or decline, if you prefer—and without prejudice—for they are not legally collectible." I hadn't time to write more, but isn't that delightful. That indicates that ten years ago I ceased the strenuous life. I don't see Dr. Dana here at the moment, but I received from him a number of gifts for a child about ten years of age, some balloons, etc., no doubt based on a correct interpretation that I am in my second childhood. I know I have reached the age of anecdotage.

It was suggested to me that a few reminiscences of my early days here in New York might be appropriate. I would like to say at the beginning that if you have read the autobiography of Haldâne (he did not live to revise the book; it was edited by his sister) you will recall that in the last chapter she says that some colleague asked him whether if given the knowledge and experience he possessed now he would care to start over again, live his life again. He deliberated and then said, "No" and the reason he gave was that he couldn't count upon the good fortune which he had had in his life which was even to him an obviously successful one. So much depends upon chance. I should make the same answer, could I start over again and expect at eighty years of age to be here at such a gathering of friends and should I have the opportunity which has been presented to me to which I owe everything. It has been the time, the opportunity, the friendship, the loyalty, the host of pupils and friends and associates to which I attribute whatever share I may have had in the advancement of scientific medicine and medical education in this country.

Now, one of the great opportunities came to me here in New York. You referred, Mr. Toastmaster, to the rather sickly condition of the medical schools at that time. They were as you read about them and hear about them pretty bad, but those of us who studied here in the early seventies were inspired by our teachers with as much enthusiasm as the students are to-day. That is, is it not, the gift of the

teacher to be able to inspire the student? We looked up or I did to my teachers of those days, Alonzo Clark, Smith, T. Gaillard Thomas and all those you have mentioned. The elder Delafield was President of the Academy when I was a student. I look back to those men with reverence and admiration and feel that I got something. Your brother, Simon Flexner, Mr. Abraham Flexner, thinks it is because of my good nature that I say these things about what we were able to get out of the medical school at that time.

I was singularly fortunate at the very beginning of my medical studies in having John Curtis ask if I cared to be a prosector. That meant going down into the room below the dissecting room with Sabin and J. C. McBurney where I spent days and nights in association with them; McBurney who had recently returned from Vienna expecting to practice a specialty, laryngology. That meant more to me, that kind of intimate friendly association, than I could have learned by sitting on the benches listening to lectures.

There was another part of my education which was more unique. I regard myself practically as the graduate of a library, that was almost my alma mater. At that time, the best library in New York City, which is now housed in this building, was that of the New York Hospital. The New York Hospital had moved and the building on 15th Street was not opened until 1878 or 1879, but their library was housed in the old Thorne mansion in front of the hospital. I used to go in through that dignified gateway, and this was the extraordinary privilege which I had which I owe to Dr. Sabin. He secured from the library, which was almost a deserted mausoleum open an hour or two during the day, the key and gave it to me. I wonder now how a student could have been so trusted. I was given the key and spent days and nights there, often staying there until midnight. That was the day in which a prize was offered for the best graduating thesis. Sabin suggested the subject and encouraged me to enter into the

competition. I think the education I got reading in that library, German and French, was on the whole a pretty good education. So the results possibly were not quite so bad as they might seem to be from a mere statement on paper of a mere three years course, the first at college, my father having a doctorate and being my preceptor, and two years taking up more tickets, each time seven tickets, and listening to lectures. I can give you but little idea of the atmosphere and spirit of these young men who had enthusiasm and zeal coming in contact with stimulating and inspiring minds of Sabin, Dalton, McBurney, and John Curtis. Those were the days in which you could have an examination for internship at Bellevue which ranked first for hospital service, six months before you got your degree and I did so, entering in the autumn of 1874. Of course I have always regarded the experience of the hospital intern's acquaintance with disease present in the living patient as a valuable asset.

After that I went abroad and I do feel that my two years there was really what gave me the success or the opportunity for what success I may have had. Others were going abroad and training for specialties. If I had trained myself in some specialty such as nervous diseases, which were my particular interest, if I had come back trained merely in a specialty, I should not have the particular kind of an opportunity I had. I chose to train myself in pathology. I don't believe there is a key quite so significant for the field or to introduce laboratory work and scientific medicine through medical education quite so well as pathology. That was a very remarkable group that I was associated with for eight months in Breslau. I don't hear of many young men who get quite the stimulus which I received there. I had gone to Strasbourg first and then to Leipzig. Ludwig did not like Virchow and said: "Warum gehen Sie nach Berlin? Virchow ist eine ueberschätzte Grösse. Go to Breslau; I will write for you to Cohnheim." They were all foreign born students, no other English speaking students there at that time. I don't believe there has ever been quite such an atmos-

phere. There was Ehrlich working with aniline dyes who developed the smear method, there was Neisser and Rosenbach. I was taken right in in a way I would not have been anywhere else. I went to their gatherings and picnics and discussions. Now young men don't get, I think, quite the contacts which we had at that time. It was the dawn of Koch's work on anthrax. He came to Breslau and showed us his work. I will never forget his coming through the room with Cohnheim. I have often reminded Koch of it. I was greatly impressed with the coming bacterial era, which had not dawned until Koch went to be health officer in Berlin.

That was the kind of stuff I had in my head when I came back to New York and you can imagine that I was looking for a laboratory. I was a graduate of the College of Physicians and Surgeons, and I had great admiration for Delafield. He said to me, "We would like to have you teach pathology. You could take over my summer courses. If you can find a room in this building which you can use for a laboratory, you are welcome to it." I went over the building from top to bottom, but there was not a nook or a corner to be used. Delafield said, "I expect to succeed Alonzo Clark in the Chair of Medicine, but as long as I hold it, there will not be an independent Chair of Pathology."

They offered me two rooms and to go to some expense to add a connecting room, making three rooms joining each other at Bellevue Hospital Medical School. That was just what I wanted. There I started in 1878. As I look back, I think Dr. Ewing was correct in saying that this signifies something. I am sorry that Osborn has left the dinner, because I don't think you can get a more striking example of the changes which have come over the opportunities at least for biological study or in particular work in biological sections in New York than to note how Henry Fairfield Osborn landed in my laboratory. His father was a very well known man, President of the Illinois Central Road. His mother introduced the system of trained nurses

at Bellevue. They were delightful, important and influential people. Young Osborn had just graduated from Princeton and they wanted to keep him at home. He had planned to go to work with Huxley. He went all over New York, to Columbia, to New York University, looking for a place for a laboratory. Finally he landed in my primitive quarters in Bellevue. It was the only place where there was an opportunity for him to pursue his studies in a laboratory, in a way that may have had a limited bearing on his future interest and study. I am delighted that he came here to-night and have been pleased with the reference he has made in his publications. He has always been kind enough to refer to our early days. He started a group of Princeton men coming to us, including the celebrated Alexander Dumas Watkins, who got me into trouble by spreading handbills around the lower East side that I would do injections on cadavers to show inoculations. Archibald Alexander spent his evenings going over the anatomy of the brain there. It was rather an interesting group of extramural workers. Some good work came out of it. I was pleased to get the other day a letter from Henry Cochran who worked there and published a very excellent paper on a study of tumors. Dr. McNutt, Nelson, and Halsted came and worked there. It was a little group of students. Carlisle was among them and I think the slides he made then compare well with the slides made to-day. He produced examples of the tubercle bacillus good enough to make photo-micrographs of.

I agree with Osler, if he is correctly interpreted, that the productive, creative thought of the world is done by those under forty. This does not mean that a man may not be a good business man or a good justice. My most active vigorous years were here at New York. They were hard times; I worked day and night, had to make some sort of a living. Dr. Goldthwaite and I played the rôle of quiz masters. It was a life-saver. But we both gave it up at the height of our prosperity. Although it was very successful at that time, it was abandoned spontaneously. We agreed that it injured the students as well as ourselves.

I spoke of it a while ago before the College of Physicians and Surgeons. We dealt in autopsies, and had the run of Bellevue Hospital for a time. Then my students were mostly from the College of Physicians and Surgeons. Walter James, George Tuttle, and Woolsey came. So at the end of the year Delafield saw that things were going pretty well and I was invited back under conditions that at one time I would have jumped at. But I felt that I would be a traitor after all that they had done for me at Bellevue if I abandoned them, so I declined very reluctantly. Delafield asked me who they could get and I suggested Prudden, and they certainly were fortunate to get him—more fortunate than if I had gone. We had been together in Vienna. I don't like to have my name mentioned without Prudden. He fitted up the old tunnel under the College and started to work. He was so retiring, but did wonderful work and had a great influence, and never got quite the recognition he should have.

About that time the coroner asked me if I would make his autopsies for him. I said I would if I didn't have to go all over the city. I did have to go to Flatbush once. Then I was pathologist at the Women's Hospital. It was a lovely and active time. Cole reminded me of those days. They were my best years, the active years. I think all of my interests or the seeds of them were started there.

What I count as especially good fortune was association with Austin Flint, the greatest mind at that time. He was a man of wide vision. He asked me to read the pathological sections of his book. I criticized it somewhat at the time and it was all re-written later. He asked me to help and I was allowed a perfectly free hand with sections on general pathology, anæmia, thrombosis, etc. I did not touch the pathology of the liver which was written by Austin Flint, Jr., and contained an account of his discovery that the liver excreted cholesterin (1862). Later I learnt in Germany that Austin Flint Junior's work was laughed at but on looking back I venture to say that the only section of any historic interest and value was that. I believe it is the only thing to be remembered in that part

of the book. It meant a great deal to me to have this association with Flint and his text-book.

These early days have come back to me; I am not going to talk about the later days, but I do feel that the stimulus came to me and the thoughts, however they may have turned out later, were there before I was forty. And I think that was all Osler meant.

I have often said that I was called to Baltimore on the advice of John Shaw Billings. He used to come and sit and listen to me teach. I have never forgotten one time he sat there the whole afternoon much to my embarrassment. I was giving out sections of tubercle and gumma of the testes. Within a week, I got a call to Johns Hopkins. I rather think Billings was the decisive factor. I don't know. He became one of my most intimate and closely cherished friends and I think what he said went at that time.

I like to recall the New York period. It seems so primitive to think of that little laboratory there, but it meant a great deal in those days because the subject was bacteriology and pathology.

I went abroad and worked a year and shall never forget my contact with Pasteur or the way he received me and showed me around his laboratory. I have since read how reluctant he was to be interrupted and I wonder how he came to lay down his test tubes (I can hardly think of it without tears) and showed me around the laboratory. Since then I have had associations with Roux, Calmette, and the delightful group.

I think the young men of to-day miss something. It isn't that they have to go abroad to get all these things. I met some of them on the other side and I know that things have developed so that they can get the best at home. But they miss something in the way of contact. I knew Ehrlich intimately and kept up the friendship with him. I have his long letter that came in August, 1914, when the war broke out, telling what it meant to him. He

never did any work after that. All that association has meant more than I can tell you in my life.

Is it not possibly appropriate just to recall what the opportunity and occasion was for the young man. How fortunate he was in bringing back the particular professional wares that he did. The germ era was dawning. The tubercle bacillus had just been discovered.

Don't be too severe on me for being in academic harness at this octogenarian period. I resigned the important Chair of Bacteriology and Pathology when I was sixty-six. I regard that as letting me out to some extent from this shocking situation of an octogenarian starting a new undertaking—the organization of an institute of the history of medicine and endeavoring to take the difficult job of administering a school of Hygiene and Public Health which was a unique opportunity because it was a novel experiment—not being a mere institute but a laboratory attempting to take account of the fact that the subject of public health training had become so technical and so specialized that the ordinary medical institution could not cover it, that at least a year or two of subsequent training was required. The problems were like those of a medical school. What were the fundamental subjects? Was it possible to carry out the right idea that the Heads of Departments should be interested not merely in training but also in research? The difficulty is that the reward for this service is not such as to attract as many of the right quality as should be attracted.

Now I am very much interested in getting something going in the way of an institute of the history of medicine. Here again is a subject by itself, but I am trying to stress to-day the humanistic aspects of medicine because in the past the whole emphasis was, in my case and I think the times demanded that emphasis, upon the purely scientific side. But I do think we want medical humanism. Humanism for a particular kind of propaganda. I am disinclined to use that term. Just as I protest against the venereal groups' use of the word social hygiene to cover that field.

We have lost the word social hygiene. I hope that this library group won't run away with this term medical humanism which I like very much. I hope it makes a little suggestion of what I have in mind. I am quite sure that this emphasis is very desirable at the present time. It is an asset for a physician, will make him a better doctor, and will give him a much greater interest in the community. He will get a far greater edge out of professional life if he cultivates that kind of interest. I am more than sure therefore that there are great possibilities for such an institute as that where real scholarly work can be done. Medicine is far behind in the line of historical approach. But I must not enter into that to-night.

I do want to tell you, Mr. Toastmaster, and all of you who have spoken so generously of me that you have given me a great pleasure in giving me an opportunity to refer to the days which are most vivid, which I cherish most because those early memories are the most vivid. I hope Dr. Sachs won't say this is due to a psychosis. You have brought them back to me and I thank you.

BOOK REVIEW

A New Reading of Haller

Stephen d'Irsay: Albrecht von Haller; eine Studie zur Geistesgeschichte der Aufklärung (Arb. d. Inst. f. Gesch. d. Med., I, 2. p.l., 607-704). 8°. Leipzig, G. Thieme, 1930.

This monograph is a good example of the newer lines of historical investigation emanating from the Leipzig Institute, less archivistic and of more definite philosophic trend than formerly. Some indications of this departure have been already perceptible in the later writings of Sudhoff, who made his reputation as an archivistic, yet in such essays as those on The Hygienic Idea in World History or his recent Johns Hopkins address, evinces a steady resolution to envisage the world "from China to Peru." Under the new director, Professor Sigerist, a highly accomplished gentleman, who has seen something of the world, the tendency comes to fruition, as if the Institute were by way of